

## National Conversation on Public Health and Chemical Exposures

### Meeting Transcript

#### Kickoff Meeting: Launching the Conversation

June 26, 2009

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#### PRESENTERS:

Gail Bingham	President Emeritus, RESOLVE, Meeting Facilitator
Howard Frumkin	Director, CDC's National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry, National Conversation on Public Health and Chemical Exposures co-chair
Nsedu Witherspoon	Executive Director, Children's Environmental Health Network, National Conversation on Public Health and Chemical Exposures co-chair
Lisa Jackson	Administrator, U.S. Environmental Protection Agency
Linda Birnbaum	Director, National Institute of Environmental Health Sciences

#### Gail Bingham:

Welcome, everyone. Those of you who are still coming in, if we could ask you to take your seats quickly. This is a conversation that's clearly started, I and really want to welcome all of you to this physical space and to the virtual space, those of you on the Web. My name is Gail Bingham. I'm with RESOLVE and I'll be part of a team of facilitators that you'll meet over the course of the day, and it's my pleasure to introduce to you the two co-chairs of the National Conversation on Public Health and Chemical Exposure to welcome you, Ms. Nsedu Witherspoon and Dr. Howard Frumkin, who are to my left.

Nsedu is the Executive Director of the Children's Environmental Health Network. Many of you know her well. She's a real leader in the field of children's environmental health. She is the past Chair and still actively involved in the American Public Health Association's Environmental Health section. She's a member of the National Institutes for Health, Association of Environmental Health Sciences' Counsel, and is Coordinator of the NIEHS Public Interest Partners. She's a member of many other advisory groups that you may have met her on and has her Master's in Public Health from GW University.

Dr. Frumkin is the Director of the National Center for Environmental Health and the Agency for Toxic Substances and Disease Registry. He is an Internist and an Environmental Occupation Medical Specialist and an Epidemiologist. Howie joined CDC in 2005, and prior to that, he was a Professor and Chair of the Department of Environmental and Occupational Health at Emory University, where he was also a Professor of Medicine. He too is a member of many advisory groups, and I assume all of you know him as well. He is an author of 100 scientific articles and many books. He has his MD from the University of Pennsylvania, and his MPH and Doctor of Public Health from Harvard University.

We are chaired by wonderful people, committed people, and very experienced people in the area of environmental health, and with that, I'll turn to Nsedu to welcome you.

**Nsedu Witherspoon:**

Thank you. Good morning and a warm welcome to all of you. It's really great to see you all here today.

Before we get started, I was hoping that you could join us in a moment of silence. I'm sure you all understand what a hard week it has been for all of us in the D.C. metro area with Monday's train crash, an unfortunate tragic and fatal crash. If we could start with a moment of silence, I would appreciate that. (*Silence*) Thank you.

Again, welcome to the kickoff event for the National Conversation on Public Health and Chemical Exposures. I'm very honored to be here today and I would like to thank Dr. Howie Frumkin for the wonderful invitation to participate in what is now the beginning of an exciting 18-month project sponsored by CDC and ATSDR.

The United States has quite a complex system for protecting the public health from exposure to harmful chemicals. Although our nation's system has had some major successes, the time has come, and various opportunities are currently available for us to look at it again, share lessons learned, identify continuous challenges and viable steps for truly protecting our public's health.

Our current approach to chemical exposures has been limited in its abilities to assemble needed data, draw conclusions, launch protective actions, and inform stakeholders. In recent years, we acknowledge and appreciate that scientific methods and understandings have certainly evolved, decision-making tools have advanced, and significant changes have occurred in the policy arena.

We collectively want and need to continue making progress in the way that we address exposures, and the way that they affect all people's health. For decades, we have focused on some traditional issues, such as cleaning our air, cleaning our water, and cleaning up toxic waste sites. However, current research suggests that issues, such as chemical exposures from food and a wide range of consumer products certainly deserve more attention. We have been a reactive society, and the need for moving into prevention is truly working, and truly working to protect our public's health is vital at this time.

Many people across the nation understand the value and timelessness of revisiting these efforts. Looking out at the estimated 420 or 430 and growing numbers of you here today, and the estimated 250 that are joining us by Webcast, also makes it clear that the importance of these issues are reflected in your interest and participation. You represent multiple stakeholders, such as government, research, academia, nonprofits, industry, business, and, of course, our beloved community members and leaders, and we thank you for making the time today in your very busy schedules to share your thoughts and experiences as we work together to chart a path forward.

We are here to revitalize the public health approach to chemical exposures, building on our nation's successes and protecting public's health from harmful chemical exposures and to modernize our nation's approach to public health.

Thank you and welcome again. I'm going to now turn it over to Dr. Howie Frumkin.

**Howard Frumkin:**

Thank you Gail, thank you Nse, and good morning and welcome, everybody. I want to offer my warm welcome to the one that Gail and Nsedu just offered to you.

As I mingled in the lobby beforehand, and as I look at the room now, I'm struck and delighted by the diversity and dedication of the group that we have here. As Nsedu said, we have leaders from government agencies across the spectrum, from environmental groups, from industry, from community groups, from private citizens. We're diverse in terms of our professional backgrounds, in terms of our perspective on these issues, in terms of our racial and ethnic backgrounds, in terms of our geographic origins, and we're drawn together by a shared dedication to improving and protecting public health with respect to chemical exposures, so I'm delighted that each and every one of you are here.

Our goal today, as we launch the National Conversation, is severalfold. First, we want to highlight the need for strengthening our nation's public health approach to chemical exposures. This is a big topic, but if we name it and identify it as an area where we need to work together to achieve improvements, we will create momentum in the right direction.

We want to explain the goals and the process for the National Conversation, so that we have a shared understanding of what this project is about. We want to break into breakout groups corresponding to six of the key areas that will comprise the National Conversation and begin to frame the conversations within each of those areas. We'll have more about that in just a few minutes, and we want to generate among you and among colleagues who couldn't be here today, but will be watching or reading about this afterwards, an interest in participating in the ongoing activities of the National Conversation as we move forward. If we achieve those things by the end of today, it will have been a very successful day.

I want to thank all of the people who worked so hard to make this day come together, RESOLVE, Gail's association who will be handling the facilitating, NAACHO and ASTHO, the National Association of City and County Health Officials and the Association of State Territorial Health Officials, DESA, the contractor who is helping the meeting go smoothly and our staff at NCEH/ATSDR, who are a spectacular group of people I hope you have a chance to meet them as the day goes on. A lot of work has gone into launching the conversation and making today a reality.

Your job is to meet other people, enjoy the networking opportunities here, put on your thinking cap, engage in a robust conversation today, and go away with a clear sense of what you think this conversation should be like and with a clear sense that you would like to be a part of it. Thank you very much for being here.

**Gail Bingham:**

Thank you. As Howie said, many people have contributed to today, so now it's our pleasure to invite you to join in.

You should have received four pieces of paper when you got your nametag. And I would like to go through the agenda first and some logistics to help you think about where and how you can make the best contribution both to today and as the National Conversation moves forward.

If you have the agenda in front of you, from now until 11:00, we will be in plenary session with one break. First, Howie Frumkin will present the rationale and approach planned for National Conversation. Then EPA Administrator, Lisa Jackson and NIEHS Director, Linda Birnbaum will share their perspectives on the importance of collaboration for strengthening our nation's approach public health and chemical exposure. We have a tight schedule, so there will not be time for questions. We'll go straight to a break and come back into the amphitheater for a roundtable conversation with each of the leaders of the six breakout sessions to share with you some of their thoughts in a little more depth to set the stage for the breakout sessions, where you will then have the opportunity to share your ideas.

This roundtable will be a time for questions from you, both to Howie with his original presentation about the approach, and any other thoughts that you think would help us all together move forward about both the process and the substance.

For those of you who are listening in by Webcast, there is a feature on your screen that is Ask the Expert, and our resident expert is Ben Gehrhardtstein, who is one of the really wonderful members of Howie's staff who made this possible. Ben, you're the expert, and I will turn to Ben for questions from those of you who are participating by Web.

We'll go from the roundtable to the breakout sessions and the topics and the locations for those breakout sessions are on your agenda. We'll give some more detailed description of exactly what will happen in the breakout sessions at that time, but you do have a handout. A second handout, the stapled one, has slightly more elaborate descriptions of what that topic area currently is thought to include. It's very much in draft form. Your ideas in the breakout sessions will become the building blocks for future work groups that will be formed after this kickoff day, to chew through.

We do ask you to pick one room and stay there, rather than sampling, because each of the breakout sessions will be going through a set of questions and it will build over the course of the roughly two hours, or a little bit less that we have in breakout sessions before and after lunch. You don't have to feel that you have to choose. If you want to be part of one of the working groups going forward, and we will talk about that nomination process a little bit later, you don't have to feel that this breakout session is the working group, or that you have to pick now which working group you want to be part of. For pragmatic reasons if your room is full, just go to your second choice and know that your ideas will be merged into the mix. Each of the breakout sessions might approach the topic slightly differently, but they all have the same purpose and product in mind.

We are asking you to think broadly about the subject matter. There is some overlap between the topics on purpose, and then to really begin to make specific suggestions about some of the actionable opportunities or problems that might be considered by the work groups. We'll talk about that again when we get to that point in the process.

Each breakout session will, by intention, break for lunch at a different bit different time so that we're not all going to the food court at the same time. If you come out the back here and take a right, there's signage to a number of options for food in the food court.

I guess I would just say now that the work groups will be flexible, as I said, in timing, but it is important to really end promptly at 2:45, so that we can be back here at 3:00 for the wrap-up session.

I would say final points, simple ground rules of learning from each other, speak up. We won't have that set of building blocks to work on together unless you do. Speak constructively, listen actively, and no cell phones. Turn them off, so that we can really focus on listening and learning to one another and coming out of here with the richest menu of options for our working groups to consider.

Final logistics, the restrooms if you go out the back here, there are some either to the left or right, and if there were to be an emergency, which we hope there isn't, the fastest way out of this auditorium is straight up to the back and follow the exit signs, . If some reason you can't do that, these two front doors are emergency exits as well.

I will turn it to you, Howie.

**Howard Frumkin:**

Somebody asked me what is going to be the ratio of conversation to presentation at this National Conversation Launch, and I said we will try to keep it as conversational as we can and achieve the optimal C-to-P ratio, but now I'm at the podium, so this is the presentation part.

As we launch the National Conversation, I want ask you to get in touch with your inner historian for a moment. Imagine we're here 40 years ago. It's 1969 instead of 2009. The nation is just becoming aware that chemicals, although offering many advantages and conveniences and necessities in life, might also have health implications that we didn't plan on, that there can be public health concerns that we need to address.

If we came to that realization together, it's 1969 and if we're planning how we might move forward as a nation to be sure that public health is protected in the context of chemical exposures, what might our vision be?

Our vision might be something like this. That chemicals are used and managed in ways that are safe and healthy for all people, something that is a very straightforward description of a public health approach to chemical exposures. If we were to actualize this vision, what kind of a system would we want to design? What would we need to have in place?

We would need accurate information about the ways chemicals are being used and the pathways through which people might be exposed. We would then need to understand, scientifically, the impacts of chemicals on health, so that we would know which ones are dangerous and which ones are not. We would then need to put in place, based on our empirical evidence and our science, policies and practices to prevent or reduce harmful exposures.

We would be aware of the need for emergency preparedness, because, in addition to routine use of chemicals, there are emergencies that occur sometimes and we need to do what we can to prevent those and to be prepared for them when they do happen.

We would be possibly more mindful now than we would have been in 1969, but being a little a-historical, the very important observations of environmental justice, the fact that not all of us are equally exposed to chemicals, would be on our mind, and we would aim to eliminate inequities in exposures.

We would want good information to be in the hands of those who need to know. We want a well-informed and engaged public. We would want healthcare providers to know a great deal about the effects of chemicals on health. We would want as much information to be available as possible, and we would want all of the agencies, organizations, communities, and individuals who have a dog in this fight to be collaborating and coordinating well among themselves.

Well, 40 years later, it's 2009, we might pause to ask have we accomplished all of those goals? Are we there yet?

We have had a very busy 40 years working in those directions. This is a picture that only goes up to the 1980s, listing some of the pieces of federal legislation that were passed. As a nation, we've passed a great number of laws.

We had a great number of scientific advances through a research effort over the last 40 years. We have formed agencies and organizations, some pursuant to these laws, some independently. We have degree programs and we trained a great number of people, many of them in this room.

It's not for lack of effort, over the last 40 years, if we haven't achieved all of those goals. In fact, we've given ourselves a very complex system, and I put the word system in quotation marks, because it's a system only in the most generous use of that word. It's a piecemeal arrangement. We have a large number of federal agencies listed on the two columns on the left who work in various ways to protect the public from dangerous chemicals exposures. We have an even larger universe of state and local agencies, professional groups, community groups, academic institutions, and so on. So, we have done a lot over the last 40 years to try to make that vision a reality, and in many ways, we have succeeded. The air is cleaner than it was 40 years ago. This is the Cuyahoga River burning. That kind of thing doesn't happen anymore. Water quality is cleaner. Lead levels, to take one example, have come down dramatically in our children's population, so we made some important advances.

But, if we revisit the list of goals that would be necessary to achieve that broad vision, I think you'll agree with me that there is room for improvement on every single one of these parameters. We don't have full information about the ways that chemicals are used. This is the basic surveillance function so important to us in public health, and we don't have full information available.

We don't have a good scientific understanding of the effects of most chemicals that are in commercial use, even of those that are in high volume use. We have a piecemeal collection of policies and practices to prevent or reduce harmful exposures, but I think many have observed in recent years that we could be doing a lot better there, and so on down the line. In each these dimensions of protecting public health from harmful chemicals, we have room to improve.

In addition, we're living in a different world now than prevailed in 1969 or 1970. The passage of several decades has led to great changes. We recognize many exposure pathways that weren't really recognized 40 years ago, consumer products for example. We have unpleasant surprises on a regular basis, because consumer products have in them chemicals that we're worried about.

We recognize a broad range of health outcomes. In the '60s, much of the concern about chemical exposures focused on cancer. We now recognize that, in addition to cancer, more subtle effects, such as neurobehavioral abnormalities, endocrine disruption, and so on, may be associated with some chemical exposures.

We have biomonitoring data. We now have better indicators than we ever thought possible of what chemicals have actually gotten into the blood and urine of the American public. That should help us target our research and public health efforts a great deal.

We have an even larger number of chemicals in commercial use than we had in 1969. We have many new approaches to toxicity testing, innovations such as computational toxicology that enable us to learn more rapidly about the health impacts of some chemicals.

The Environmental Justice Movement has fundamentally changed the way we think about chemical exposures by introducing the concept of justice and equity into our public health efforts, and the advent of green chemistry has given us a new way of thinking about chemical use, the idea this we could actually intentionally design chemicals to be environmentally friendly, safe and healthy.

With all of this, with the fact that we haven't necessarily achieved what we would have set out to in 1969, with the fact that it's a different world, it's a timely moment to stand back and look at our system of protecting public health from hazardous chemicals and see whether there are some ways in which we can do better.

Our goal, in the course of this National Conversation, is to develop an action agenda for strengthening the public health approach to chemical exposures. We would like, in this collective process, over the next year and a half or so, to identify gaps, things that should be getting done that aren't getting done. We would like to identify redundancies, things that are being done in multiple locations that, if we consolidated, would both be a better use of resources and get the job done more effectively.

From those analyses, we would like to identify priorities, and we would like to identify solutions and make those available for those who need to know to consider.

At NCEH/ATSDR, the center at the CDC I direct, we take this process very seriously. We are very earnest about doing our job better, so we intend to take very seriously the recommendations that emerge from this process. But we also understand that we're not in this alone. That, for us to do our job as well as possible, we need to collaborate with other agencies and with other stakeholders, and we recognize that recommendations will come out of this process that will extend far beyond us. So we very much hope that our partners participating in this process will be able to utilize those recommendations as well.

We intend to collaborate very closely with other federal agencies, many of which are represented in the room today by senior representatives, and we are very grateful to all of you for being here. And we intend, of course to engage with the whole range of nonfederal partners, and many of you are represented here today, and we're grateful for your presence as well.

There will be differences among us in the conversations, but I think it's important to highlight shared values. I want to suggest that almost everybody, if not everybody in this room and on the Web, shares the values that are listed here. We believe in safe, healthy, wholesome environments. We believe in caring for vulnerable populations. We believe in responsible stewardship for future generations. We believe in the value of prevention. We believe in relying on good science. We believe in using resources efficiently, something that is especially important at a time of economic limits. We believe in good government, which means that those of us in the agencies need to be working together effectively in achieving impact with what we do.

Now the devil's in the details. This is not to be overly Pollyannaish and to suggest that we will agree on everything, but there is a very big foundation of shared values that I think run through this crowd, and, more broadly across the nation, and I think this is a powerful foundation upon which we can build the National Conversation.

There are some key aspects of the conversation I want to call to your attention. The first is that there are many improvement initiatives underway already. Many of the agencies are working hard to improve their performance, and as we talked with our partners in preparation for today's launch, we heard more than once, this won't slow us down from what we're doing already, will it? Many of the non-governmental organizations that are here, many of the professional associations, environmental groups, community groups, and others, are also engaged in active efforts to improve aspects of the public health approach to chemical exposures and we heard the same concern.

The answer is no, this will not slow those efforts down or interfere with those efforts at all. We are not throwing a wrench in anybody's work. In fact, I think exactly the opposite will be true. The dialogue that will emerge in the course of this National Conversation, the good ideas that will flow, the broad-based support that I hope evolves for some of the initiatives that we recommend should enhance other efforts that are underway.

Some people have asked us will this result in unfunded mandates? Are you going to tell us what to do? The answer is no. No, mandates will come out of this. This is a recommendation process. We will be generating good ideas that will then be made available much the way a national commission might do, not the way legislators do. This is a very voluntary process based on collaboration of a broad set of stakeholders.

Finally, very importantly, this will be a transparent, open, inclusive, participatory process. President Obama announced this way of operating government is very important to this administration. We firmly believe in that. This is a smoke-filled room and it won't be anything like that, so this will be a very open and participatory process. We think that is going to be one of the examples of good government that we would like to emulate.

Today's job is to launch the conversation. There are, as Nsedu said, over 400 people in the room, over 200 people participating by Web, representing a broad variety of stakeholders, and we think this is the ideal group to do this.

We will be breaking into breakout sessions after the morning session. The topics of the breakout sessions are shown here. Monitoring, or what is sometimes called surveillance. It's basic data collection function, collecting environmental data, health data and human exposure data. This will be a group that will consider how we're doing as a nation, and make recommendations for how we might do better.

There will be a group on scientific understanding, on building the science base about the health impacts of chemicals. There will be a group on policies and practices that will look at the ways that we both incentivize better practices and discourage more dangerous practices. There will be a group on emergency preparedness. There will be a group on serving communities, and there will be a group on education and communication.

We had some very good input from advisers on how best to structure this conversation and what categories to break it into. I'm not sure that we have this right. There are many ways to divide reality, but we think this will be a highly functional way to go, and we welcome your input on elaborations or modifications of this structure.

Working groups will be formed after today's meeting. Today, we're having breakout sessions that will essentially be proto-working groups, and that will frame the conversations for the working groups to proceed with.

If you are in a breakout session today, it doesn't automatically put you in the working group. In fact, what you will be invited to do is apply for working group membership. We will be making selections, because we need to keep the working groups to a manageable size, and we want to be sure that they're balanced in terms of the many kinds of input that we receive.

So beginning today, there will be a Website available for indicating your interest in being on a working group. It's the National Conversation Website, whose URL is listed here and is written in the materials you have. I encourage you to go ahead indicate your interest in being on a working group over the course of the next 18 months or so. The working groups will meet periodically, sometimes by telephone, sometimes face to face, and they will carry out their work with very strong staff support.

We will also emphasize public participation over the course of this process. There will be interactive on-line discussions. There will be a citizen conversation toolkit to facilitate local conversations with face-to-face meetings. There will be sector-based meetings, and there will be public meetings both in



major cities and in impacted communities around the country, and those will unfold over the course of the next 12 to 18 months.

The timeframe looks something like this. The project has been in development for a little over a year. That lime green arrow on the bottom left indicates where's we are today. That's our kickoff meeting. We will be proceeding over 12 to 18 months, punctuated in October of this year by the National Environmental Public Health Conference in Atlanta, where many work groups will come together and check on their progress so far.

There will be recommendations that will emerge from each of the groups that will tentatively be pulled together into an action agenda, about a year, maybe 16 months from now, and that will finally result in creating a final action agenda, something like 18 months from now.

We have heard again and again, go for low-hanging fruit. Identify suggestions that are practical, that can be implemented, and that can lead to system improvement in a reasonable timeframe. So if, for example, we identify that two different agencies, both are about the business of aggregating large amounts of toxicological data to summarize the impacts of chemicals, we might recommend those two agencies work together to see if they can consolidate for greater efficiency and less confusion for the users.

If we identify areas where we need much more surveillance data about the ways in which chemicals are used, we might recommend that more surveillance be carried out and there might be a recommendation as to who would do that work, and so on. These are practical, actionable recommendations and it's that kind of recommendation that we hope the working groups will generate.

Thank you, again, for being here. Thank you for your commitment to protecting public health in the context of chemical exposures. Thank you for your enthusiasm. We're going to move now to the next piece of the agenda. Is Administrator Jackson here?

It's a great honor for me to introduce EPA Administrator. Lisa Jackson. As Administrator, she heads a staff of approximately 18,000 professionals, dedicated to protecting the public health and the environment of all Americans. She was nominated to lead the agency by President Barack Obama on December 15, 2008 and was confirmed by the Senate on January 23, 2009. She is the first African-American to serve in that position.

Administrator Jackson lists among her priorities reducing greenhouse gas emissions, improving air quality, managing chemical risks, a very pertinent priority for today, cleaning up hazardous waste sites, and protecting America's water.

Before becoming EPA Administrator, Jackson served as Chief of Staff to New Jersey Governor Jon Corzine. Before that, she was appointed by Governor Corzine to be Commissioner of the state's Department of Environmental Protection in 2006. While commissioner in New Jersey, she was known for her advocacy for reducing greenhouse gases, aggressively addressing pollution, and having an open and honest dialogue with stakeholders in the public policy process. She was also noted for ensuring that underserved communities received fair environmental protection under the law.

Administrator Jackson joined the New Jersey DEP in 2002 serving as Assistant Commissioner for Compliance and Enforcement and then as Assistant Commissioner for Land Use Management before becoming Commissioner.

Prior to joining DEP, she worked for 16 years as an employee at the U.S. EPA, initially at headquarters here in Washington, and later at the regional office in New York. During that time, she was involved in directing hazardous waste cleanup operations and helping to direct the region's enforcement division.

Governor Corzine said of her, after her confirmation to head the U.S. EPA, the American people have gained a tireless public servant and a tenacious guardian of the environment.

Jackson is a Summa Cum Laude graduate of Tulane's School of Chemical Engineering and earned a Master's Degree in Chemical Engineering from Princeton University.

She was born in Pennsylvania, and grew up as a proud resident of New Orleans, Louisiana. She now resides in Washington and in East Windsor, New Jersey. She is married to Kenny Jackson, and is the proud mother of two wonderful sons, Marcus and Brian.

It escapes me why it's not on the official biography that it's also true that Administrator Jackson recently made an appearance on the Jon Stewart Show and she rocked. Please join me in welcoming Administrator Lisa Jackson.

**Lisa Jackson:**

Jon Stewart always gets a laugh.

Good morning. How is everybody? I'm so glad to be with you today. Thank you, Dr. Frumkin. Hello, members of your panel and to join you in launching this National Conversation.

This initiative has tremendous potential to make a difference in the lives of families and communities, and engaging the public, bringing them into the issue is especially important at this moment for both of our agencies, but more important, for our country.

One of the most significant challenges we face right now is in restoring the American people's faith in our ability to protect them, to clean the air, to ensure that they have clean water and clean land.

We also have to serve the public's very valid, and I think very powerful right to know, ensure that our data is based on the very best science we can muster and transparency, and make sure that it is as accessible as possible. That is how we begin to rebuild public trust in our work.

It helps us deal with concerns about chemical exposure, and it builds a foundation for confronting the long list of items on our agendas, both collectively and individually. A National Conversation is a major step in the right direction. So what are we going to do about it?

Well, at EPA there are a number of steps that we have been taking. One of the things we have been doing in the first few months on the job is to try to refocus on our work on core issues, our meat and potatoes issues, I like to call them, things like chemical management.

When I first arrived at EPA in late January, I identified the need to strengthen this country's chemical management program as one of my top priorities at EPA. This year, we restored the toxic release inventory to its prior, stronger reporting requirements, opening the way for more a comprehensive understanding of this extremely important data. TRI is a cornerstone of our mission to protect human health and the environment. Above all, it's a crucial resource for individuals and communities across the nation.

Another important resource is the national air toxic assessment, or NATA. Just this week, EPA released the latest version of this state-of-the-art science tool that estimates health risks from breathing air toxins in this country. The report assessed 180 air toxics plus diesel particulate matter from stationary and mobile sources. That information is designed to help federal, state, local and tribal governments identify areas and specific pollutants for further evaluation. That way they can better understand and address the risks of cancer, birth defects and other serious health problems.

We have committed to taking new actions on dioxin at the Dow site in Midland, Michigan. EPA is stepping up our commitment to this site, in partnership with the State of Michigan, so we can accelerate cleanup and deal with threats to human health and the environment that have persisted for far too long.

We are also redoubling our efforts to provide guidance on the science of dioxin's health effects, to inform cleanup decisions at the site, and also to inform and protect other communities in Michigan and across the country who may face dioxin contamination.

There are a host of other places where EPA has been active, reinvesting in the Superfund Program, taking action to ensure the safe use of pesticides, initiating a program to monitor the presence of toxic pollution in the air around several of our schools.

Last week, we issued a public health emergency at an asbestos Superfund site in Montana. Investigations have found hundreds of cases of asbestos related disease in small communities of Libby and Troy, Montana, and for decades, the disease and death rates from asbestosis in the area were staggeringly higher than the national average. It's the first time that EPA has made a finding under CERCLA that conditions at a site constitute a public health emergency. EPA is moving forward with the cleanup there and working alongside the U.S. Department of Health and Human Services, which will help provide much needed care.

So I'm very pleased about the progress we made, but I know there is much more work that needs to be done. To help ensure that we have a chemical management program in place that the American public can have confidence in, I have asked that we undertake an evaluation of EPA's existing chemicals program, including the chemical assessment and management program. We are nearing completion of this evaluation, which will help us determine how to more efficiently assess, prioritize and take action on chemicals that pose a concern, particularly chemicals that pose a concern for children.

Later this summer, we intend to announce efforts to enhance the agency's chemical management program and formally engage the environmental community, industry, and a wide array of stakeholders on the best path to move forward.

I also believe that the time has come for reform of the Toxic Substances Control Act, the 30-year old statute for regulating industrial chemicals. There are clearly some EPA people. EPA intends to work with Congress and all of our stakeholders on this important effort.

In all of this, it is critical to understand that the issues of today and the coming years are changing. I recently sat on a panel with William Ruckelshaus who some of you may know, served as the first EPA Administrator and is actually the only one who served twice. On the panel, we discussed the low-hanging fruit of water protection, and how it has, for the most part, already been addressed.

Administrator Ruckelshaus put it very well, I thought, when he said environmentalists in the 1970s could see and touch and talk about problems that people could literally feel. If there was a problem with water, they might be able to taste those problems or smell them, too, but today, the portfolio of pollution and

chemical challenges is different. Chemicals seep into our water and land from a variety of less conventional places. They come in different shapes and sizes. We have to develop effective ways to manage non-point sources of pollution, like agriculture and livestock runoff and like synthetic organic chemicals, including pharmaceuticals.

We are being proactive about detection and prevention, but resolving some of these issues without single major sources and without visible effects is a new challenge. That is where a campaign like the National Conversation can be very effective. It allows us to move beyond traditional roles as regulators or enforcers and try to communicate a shared sense of purpose and individual responsibility.

That is important when household items that you and I use every day can have long-term impacts on our environment. Take, for example, one of my favorite stories about something that recently happened in Spokane, Washington. Spokane has put in place a near total ban on dishwasher detergents containing phosphates. They took that action because those chemicals were reaching the Spokane River and leaching the oxygen from the water, causing algal blooms and killing the fish and other aquatic life as a result.

Some of the residents of Spokane, people who, no doubt, care deeply about their environment and the cleanliness of their water, began driving 45 minutes and crossing the border into Idaho to buy contraband bootleg detergent, the good kind, the kind with the phosphate. They believe it works better, and they don't see the immediate connection between their actions and the dirtier river.

So some of the challenges ahead of us are that chemical management isn't always simply a matter of the agency cracking down on some theoretical big polluter somewhere. The answer is not to step in and regulate every dishwasher. We must also do a better job of educating people, of facilitating communication and collaboration between individuals, communications and businesses, and programs like this National Conversation can put environmental protection in the hands of the people. It can help them help themselves.

Finally, as we undertake this conversation, we have to be mindful that we are at a critical moment of world leadership. Around the globe, other nations are looking to us for action. We saw a great example of that at the Global Environment Summit in Nairobi earlier this year.

For years, U.S. policy had been to oppose any binding international standards on mercury levels. This year, we agreed to join in the effort to lower the levels of mercury worldwide.

Once the U.S. changed its policy and we committed our support, other countries, like China and India, came right to the table. They were perfectly willing to follow our lead, but they were also unwilling to act without it.

That is the power we have to make the difference, to be the standard bearer. As we seek to better manage toxic chemicals, we should be mindful of the global implications, and I thank Dr. Frumkin for pointing out the disproportionate impacts in this country, but be mindful of them as well, because internationally, what we do sets the standard oftentimes for developing countries. Please remember that we must shepherd and steward them as well.

So we have our work cut out for us. Among others, our tasks in the years ahead include enhanced protections for children and consideration of aggregate exposures for multiple chemicals when we evaluate risks.

We need to use the best available science and make information on safety of chemicals more available to the public. Ultimately, our work is built on the premise that environmental protection is about human protection. It's about family protection. It's about community protection. It's about safeguarding people in the places where they live, work, play and learn.

Initiating this conversation and providing this information is where that starts. I urge you to be collaborative in the best spirit of the president and his administration. We will not make progress working at opposition to each other, to find those skills and expertise that you can leverage, not to re-create, not to assume responsibilities that are otherwise taken care of. There is too much of that in government, and the American people know it when they see it, so don't make that mistake. Start here to build something that is better than the individual expertise and experience of us all.

I look forward to working with all of you in the years ahead. Thank you all so very much. Have a great day.

**Gail Bingham:**

Thank you so much, Administrator Jackson. It is now my pleasure and honor to introduce Dr. Linda Birnbaum. She is the Director of the National Institute of Environmental Health Sciences, or NIEHS, that oversees, as a result, a \$730 million budget that funds multidisciplinary biomedical research programs, prevention and intervention efforts that encompass training, education, technology transfer, and community outreach.

NIEHS is located in Research Triangle Park in North Carolina, and currently supports 1,240 research grants.

A native of New Jersey, Dr. Birnbaum also served as a Federal scientist for nearly 29 years. She is a recipient of numerous awards and distinctions, and she is an active member of the scientific community.

She is currently President-Elect of the International Union of Toxicology. The umbrella organization for toxicology societies is more than 50 countries combined. Former president of the society of toxicology, the largest professional organization of toxicologists in the world, former chair of the Division of Toxicology at the American Society of Pharmacology and Therapeutics, and former vice president of the American Aging Association. It's my pleasure to introduce Dr. Linda Birnbaum.

**Linda Birnbaum:**

Thank you. I'm kind of overwhelmed at the moment. It's really a great pleasure to be here, and I would really like to thank Dr. Frumkin for initiating this conversation, and I really need to acknowledge Lisa Jackson, who you all just heard from. Not only has she taken over as the Administrator of EPA, she has reenergized, revitalized, and revalidated that organization, and I think we all deserve to give her a round of applause for doing that.

I would like say how glad I am to join you here to take part of this National Conversation on Public Health and Chemical Exposure, a conversation, which is not new to many of us. Many of us have participated in it for many of our careers, some of us for decades, but which always takes new turns and new approaches for new horizons.

Our environment is what's all around us. The commitment to understanding and preventing environmental influences on disease is a commitment shared by all the agencies represented at this meeting.

At the beginning of this year, as I think you just heard, I left the EPA after a 19-year stint, and returned to the National Institute of Environmental Health and the National Toxicology Program as the Director. I think it's important to observe that, though Dr. Frumkin and I have never shared or served in the same organization at the same time, and again, this is true for many of us in the room, in an important sense, we have always been on the same team, working to ameliorate and prevent disease and dysfunction caused by environmental exposures. We serve in several organizations and disciplines, but our goal is singular, to improve and safeguard the public health from the effects of environmental stressors.

Howie and I, and others who work in the service of science and the public health, find ourselves faced with new opportunities. With a new administration and a new vision in Washington, the National Conversation on Public Health and Chemical Exposures, and indeed, entire scientific enterprise in its role in public health, has been renewed.

For those of us working in the trenches who are charged with fulfilling the programs of the administration, with the funding, prompting and oversight of the Congress, it is greatly to our advantage, all of us, to work together. Not in the Pollyanna sense of good fellows and fair play, although, that's all right, too, but in the hardnosed sense that joins facilities, expertise, programs, and organizational energy to solve problems that we simply will not solve within one organization.

What I would like to do, very briefly now, is review some of the programs and initiatives of the NIEHS and the NTP. As I do this, I will hope that it will allow you to make some new connections and see how your organizations and your staff can work together with us, and we with you, even more so than in the past, through cooperation and collaboration, to better fulfill the single goal of improved public health.

We at the NIEHS are one of 27 institutes and centers of the National Institutes of Health. One of the things that makes us unique as an institute is that we are not in Bethesda. As you have heard, we are in Research Park, North Carolina, and I invite you all to come down and visit us there.

We also have a beautiful campus that we share with EPA, and we are in the process now of establishing, I would say, a memorandum of cooperation, which should have been established years ago, so that we can share our facilities, our equipment, and much of our work basically across the lake.

Many of those who don't know us well, or are new to toxicology and environmental health, I would like to acquaint you, again, with the institute. We are the premier environmental health sciences research institution in the world, and we have intramural laboratory and extramural funding programs. Like most of our sister NIH institutes, the greatest share of our funding goes to support our extramural research and training activities in universities and research institutions across the nations under the administration of our division of extramural research and testing. We also provide the headquarters and leadership, and most of the funding for the national toxicology program.

We have a dynamic, world-class division of intramural research that conducts research mostly on site in our own laboratories. The research includes epidemiology, bio-statistics, molecular genetics, signal transduction, reproductive developmental biology, respiratory biology, and molecular carcinogenesis. These are examples.

Our in-house scientists collaborate extensively with partners and other institutes, other agencies and academia. For example, our epidemiology branch, in particular, has had many longstanding, productive collaborations with NCEH and CDC.

Some of the highly visible research that has been done at NIEHS includes that of a devoted group of our investigators that played a critical role in discovering the first genes clearly linked to susceptibility to breast cancer, the BRCA1 and BRCA2 genes. These are used in standard genetic tests in clinics throughout the world today.

The institute continues with several other major initiatives to define the environmental roles and causations of breast cancer, and we are currently in process of a major NIEHS wide initiative called the sister study, in which we have just finished recruitment of over 50,000 women who are sisters of women who had breast cancer. This is a long-term, perspective, longitudinal study, and the data and the information and many of the resources of this study will be made available to the external community for them to be able to mine for additional information.

In fact, the first results from this study were recently published showing an association between obesity and telomeres shortening. Telomeres are associated with aging, and the shorter your telomeres, the more old your cells are. This is a very interesting observation.

One important item that I did want to mention here is that we have just opened our clinical research unit on site. The formal opening is July 27<sup>th</sup>, and again, I would invite you to join us for that opening, but we have actually recruited our first subjects here. This provides a facility for direct interaction of our scientists with study subjects, and for performing noninvasive procedures relating to research and associated laboratory work that will greatly enhance our clinical and scientific staff's ability to perform clinical studies, and to translate bench science into understanding of disease processes in humans.

The largest, single portion of our budget goes to fund extramural research in institutions across the nation. Many of our extramural programs are developed collaboratively, not only with other institutes of the NIH, but also with partner institutes, for example, including the CDC and EPA.

The past successes of our NIEHS extramural grantees are legion. NIEHS with EPA funded the Six Sisters study at Harvard, which became the ten cities, the 12 cities, and it's now the 24 cities. This is the study, which looks at air pollution in various cities and relates it to their incidence of disease. Collectively, the results of this study were instrumental to EPA in establishing the regulatory limits for both ozone and PM under the Clean Air Act. NIEHS was an early prime mover in identifying the health hazards associated, for example, with even relatively low blood levels of lead, so we all know the removal of lead from gasoline was one of the most effective public health measures ever. However, what has recently been coming out is that, even at much lower levels than we previously thought were of concern, we're finding that lead still has impact both on behavior and cognitive function, and that it's not only lead in the very young, but it's lead in school-aged children which appears also to have adverse impacts.

NIEHS has done fundamental work on the health effects of pesticides, PCBs, PBBs, dioxins, endocrine disrupters, butadiene, mercury, arsenic and asbestos, and many other environmental agents, and some of the current research programs I would like to highlight here are good examples of the collaborative nature of our overall research enterprise.

The renewal solicitation for the NIEHS, EPA, Children's Environmental Health and Disease Prevention Research Centers is now on the street. There are two parts to this solicitation. One is to for the full centers to support a multidisciplinary research program, both basic and applied research, to examine the effects of environmental factors on children's health and well-being.

The second part of the solicitation is for several formative centers to provide support for developing the intricate science necessary to compete for a full center grant.

Other programs that are grounded in collaborative culture are our Centers for Ocean and Environmental Health, which are funded with the National Science Foundation. We have a program in obesity in the built environment, which includes two CDC centers as participants; NCEH and the National Center for Chronic Disease Prevention and Health Promotion.

We just joined with the Autism Advocacy Group, Autism Speaks, to fund a project at Drexel University School of Health in Philadelphia, known as ERLI, for the early autism risk longitudinal investigation. Researchers in this study are recruiting 1,200 women who are already mothers of children diagnosed with autism spectrum disorders, and who are pregnant, or planning to become pregnant with another child.

By studying families already affected by autism, we have the best chance of learning how genetics and environmental factors could work together to cause autism, and the scientists at Drexel University in Philadelphia are working with scientists in Baltimore and Northern California as well.

I serve on the Interagency Autism Coordinating Committee, which includes key membership, not only from NIH and CDC, but from other parts of the federal government, especially the Department of Health and Human Services, and many representatives of advocacy groups and parents. This group has developed a research strategy for autism, for which the potential role of environmental contaminants is highlighted.

We also have current solicitations on the street for their Superfund research and the worker training programs, and this Superfund program is a sister program to those at ATSDR. Both are funded by the same subcommittee of Congress, not the subcommittee, and this is a subcommittee that funds the EPA. It is not the subcommittee that funds the majority of the work done under health and human services.

We are also reaching out under another new program called our Partnerships in Environmental Health, and I'm going to talk briefly both about Superfund and this new partnership program.

The Superfund Research Program, or SRP, is a unique program, which funds multidisciplinary research on health effects associated with hazardous substances, together with environmental engineering, fate and transport, and remediation technologies for hazardous waste sites.

The other part of our Superfund program is the Worker Training Program, which provides training for hazardous waste workers and emergency response workers in all types of situations, from formal hazardous waste site cleanup to natural disasters.

The NIH Superfund programs use a multi-pronged approach to the task of helping to protect the health of the 14 million people known to be living near Superfund sites. In undertaking this mission, collaboration is clearly critical, and we actively solicit input from our partners, especially ATSDR and EPA. The Superfund research program has worked with ATSDR staff to arrange a Superfund research program grantee seminar series ATSDR. Scientific areas of mutual interest include biomarkers research, mixtures research, and research translation. One of the important things to understand is the Superfund research programs are integrated programs that go from the basic research to technology development and encompass the whole thing.

Our Worker Training Program has worked closely with ATSDR, OSHA and FEMA to develop specific training topics essential for, not only hospital employee populations, but for cleanup worker sites as well. Our disaster response training, the Worker Training Program has always coordinated with the ATSDR emergency response personnel and the EPA response personnel through the national response team to



be sure that we have communication and collaboration during actual national response incidents, as well as preparedness activities with other elements of CDC.

Materials created by ATSDR and EPA have been incorporated into NIEHS sponsored training for emergency responders. The Worker Training Program has collaborated with ATSDR in developing its roadmap for the future of national hazardous substances incidence surveillance. A point that I would like to make here is that the Worker Training Program has trained over two million workers in the past 20 years, since its establishment across the nation in every state and every territory. These include training of many minority workers in underrepresented areas, and we have had tremendous success in dealing with the previously unemployed and bringing them into the productive work force in this way.

Planning and priority setting for our Superfund research program and Worker Training Programs is an ongoing process. We actively solicit input from the scientific community and through our partner agencies. We are committed to making sure that our research is public health relevant, and that it meets the needs articulated by our partners. We know that better environmental health decision-making depends on a better understanding of routes of exposure and the effects of exposure to guide and inform our efforts at prevention of exposure.

The partnerships for environmental public health is a new paradigm for the way NIEHS visualizes research. It is truly a program for the future. The establishment of this program demonstrates NIEHS' commitment to supporting initiatives for communities and scientists to work together on contemporary issues in environmental public health.

Over the past year, in coordination with the community, the extramural division has developed these goals for the partnerships for environmental health program. These goals are based, in large part, on comments from the requests for information, which is released in December of 2007, and from a large stakeholder workshop that was held just about a year ago in June of 2008.

NIEHS has begun joining with CDC and ATSDR and EPA in their efforts to promote community-based public health activities. NIEHS staff have presented information about the partnerships in environmental public health at a meeting of CDC, ATSDR, and EPA public health grantees. Via this umbrella program, we plan to use numerous mechanisms to support partnerships between researchers and communities. Opportunities exist to coordinate this program with ongoing work in environmental public health at our sister agencies.

Now I want to turn briefly to the National Toxicology Program, and offer you an overview of this other part of my director responsibilities as I am Head of this. This is not really just part of NIH, but is a cross health and human services program.

This unique dual appointment that I hold goes back to the founding of the NTP during the Carter Administration, when Secretary Joseph Califano decided to put all of the cancer bio assay studies and other similar toxicology studies within HHS under one umbrella. They asked David Rawl, who was the second director of the NIEHS, to take on the task of leading the effort. Thus, NIEHS provides both the home and the leadership for the National Toxicology Program.

The NTP brings together the toxicology study functions of NIEHS within NIH, the toxicology study functions of NIOSH within CDC, and the toxicology study functions of NCTR within FDA is a virtual agency. Our executive committee draws on the leadership of these organizations, as well as other federal organizations, including EPA, CPSC, and others.

This may sound unwieldy, but it works, because the focus of the effort is very tight. We are trying to conduct studies to determine the toxicity of specific environmental agents, and to develop and validate study methods.

Our mission is to evaluate agents of public health concern by developing and applying tools of the modern toxicology and molecular biology. The NTP mandated mission includes fulfilling the coordination of toxicology testing across the federal government.

Building on the cancer bio-assay studies, which had been done at NCI decades ago, NTP has brought forward the two species, both gender, rat and mouse studies to a level of sophistication and uniformity that has made a series of technical reports the gold standard for such testing in the world.

Moreover, the laboratory data, tissue paraffin blocks, and other biological samples of these studies are meticulously archived for further use as new resources in science become available. These archives are regularly and extensively used, both by us and by many of you in this audience.

From these studies and a comprehensive review of experimental results from throughout the world, NTP produces the congressionally mandated report on carcinogens, which identifies chemicals characterized as known to be or reasonably anticipated to be human carcinogens. These categorizations of sciences or substances of concern are subject to extensive review and are regularly added to, and in some cases, de-listed as the science moves forward.

The NTP has established new criteria for future immunotoxicology, reproductive, and developmental studies, bringing the same rigorous standards it uses for classifying the outcome of its cancer studies to many of its non-cancer studies. These build on years of NTP studies on such health effects as reproductive and developmental outcomes, neurological outcomes, and immunological outcomes.

The NTP is also the home for the center for the evaluations of risk to human reproduction, also known as SEAR, which has played a central and very visible role for its recent consideration of the potential adverse health effects of bisphenol-A. I suggest you stay tuned for the upcoming workshops that will be held on issues related to soymilk and Genistein.

I should mention the NTP interagency Center for the Evaluation of Alternative Toxicological Methods, NICEATM, which is the group that helps facilitate the work that is done by ICCVAM, which is the Interagency Coordinating for the Evaluation of Alternative Test Methods.

National Toxicology has been a steadfast and key asset in the public health arsenal. I am proud of both its successes and its future potential.

Besides its member agencies, NTP's oversight committees bring together most of the research and regulatory agencies with mission responsibilities for chemical exposure and prevention of environmentally and occupationally related diseases. The structures are there already to facilitate collaboration. NTP staff also serve on NCEH/ATSDR committees and vice versa.

The role of the NTP and toxicity testing I have already alluded to some of this, but our job is to provide the basic toxicology information. We are to integrate results from new kind of data rich techniques with traditional tox data. We are to increase the emphasis on understanding and explaining exposure/response relationship, focusing on issues of symmetry. We are developing new methodologies for efficient and thorough toxic assessments. We provide guidance for the proper utilization of new types of information, and we coordinate toxicity testing across the government.

Here is a list of some current research and testing areas, some of them you may find very interesting. Some of them are really dealing with environmental chemicals, but since FDA is also part of this coordinating organization, we also have a focus on pharmaceuticals and, for example, herbal supplements as well, but you can see some of our favorite things, such as drinking water contaminants, endocrine disruptors, green chemistry, nanomaterials, POPS, and photo toxins.

When we talk about transforming environmental health protection, we are using our expertise to dramatically change our ability to establish the knowledge base necessary to protect human health.

Looking at this diagram, it is easy to see that just continuing to rely on human and rodent studies won't get us where we need to go in order to acquire the knowledge we need to regulate the 80,000 chemicals, which are in commerce, and the tens of thousands of chemicals that we are exposed to every day. By integrating alternative animal models, such as zebra fish and sea elegans, and also implying in vitro assays that takes advantage of our knowledge of critical toxicity pathways, we can supplement the studies on left of the diagram with those on your left and use it to prioritize testing strategies, as well as to help interpret the results.

The interagency coordination on toxicity testing is a committee that is involved in preparing the nominations of chemicals for testing and research. We look at many of the FDA priority chemicals, chemicals that ATSDR brings to us.

I would say to those from EPA in the audience, we desperately need your re-involvement, your reenergizing, and your nomination of chemicals. We used to have a very active nomination program coming to us from EPA. That has been a little quiet lately. I hope it will pick up. We also solicit nominations from all of our stakeholders and the general public as well.

Our evaluation of nominations and studies plans is by this committee, as well as our NTP External Executive Committee, which helps provide guidance to us.

Then we have inter-agency agreements with FDA, CDC, and EPA to carry out testing on specific topics. For example, the testing on BPA, herbals, dietary supplements, and so on. Some of the characterization of nanoscale exposures is done with our collaborators at NIOSH, and then looking at exposure assessments and occupational settings.

When we talk about new opportunities for collaborations with the NIEHS, I hope I have shown you that many of the strengths of NIEHS and NTP as key players in environmental health, understanding the effects of chemical exposures, and using that knowledge to reduce exposure, prevent disease and prevent dysfunction.

Health and the environment are increasingly a priority for the nation, and new issues are emerging. For example, climate change and the health effects of mitigation and adaptations, exposures from new technology such as green chemistry and engineered nanomaterials.

Today, NIEHS is at the beginning of initiatives to look at the health effects of nanotechnology, the use of configurations of molecules designed to do specific tasks. Nanotech is being developed for a wide range of uses in industry and medicine, and has already entered our lives. For all of you who are wearing makeup, sun block, it already has nanomaterials in it, but many of us would wish that those materials had been tested for safety before they were put out in Congress. We really would like to know what are the

health effects these tiny quasi machines might be, so that their benefits may be enjoyed and, if there are dangers, avoid it.

In order to be successful at this critically important juncture, we need the best individual and the best team science, and that means working together with all of our partners.

Our job doesn't stop with the publication of scientific results. We have an obligation to help translate the fruits of our research investments into public health interventions, policies, and prevent clinical practice to provide the best protection of human health.

Today I brought you news and greetings from the National Institutes of Environmental Health Science and the National Toxicology Program. My organizations and the ATSDR, NCEH and EPA have long worked together making important contributions to the environmental health sciences and to public health.

In the future, as in the past, we will work hard to find ways to expand, extend and deepen the research we do and the public health results we deliver, by working more effectively and efficiently together, and with other partners within other agencies of the federal government and academia, state and local health agencies, with agencies, universities, stakeholders across the world.

Finally, of course, we know we have the same boss and the same constituency, the American public. We have it within our responsibility to help all of our people to live longer more productive lives in better health and better prospects. I think you all agree with me that this mission and this goal make our jobs extremely rewarding. Thank you.

**Howard Frumkin:**

Thank you very much for a wonderful talk. We have heard two fantastic presentations from Administrator Jackson and Dr. Birnbaum.

A number of themes have been occurring all morning. I will pick out three or four to mention to you. One is a passionate commitment to prevention and stewarding public health. Another is the other is the key role of collaboration, not only among federal agencies, but with non-government entities as well. Another is accountability to the public we serve, and the last is the enormous opportunity that we have at this moment to take a fresh look at the way we do our work, to identify ways to do it better, and make those improvements. So keep those in mind. Those will be very important themes throughout the course of the day and the National Conversation.

At this point, we're running a little bit late. The agenda shows a break before the beginning of our panel discussion at 10:00. Gail and I just conducted a cross benefit analysis of what to do, given that we're late, and I, of course, said, just let them stay where they are and we'll move right on. Gail, being much more sensible, said there's coffee and food in the hallway, so we're going to have a break, but we'll make a deal. I ask you to take a quick break, and when the facilitators come to remind to you that it's time to take your seat, do that expeditiously please.

All of the panel members, if you will come up to the stage just a few minutes before we begin, that will be in about 10 minutes and we will get started. Thank you all.

*(Break)*

**Gail Bingham:**

As people are taking their seats, action is the name of the game, as our friends were talking about at the beginning of the break, and responsiveness is part of having a conversation with integrity where people can take action now, where that action is clear, and continue to think together about what additional actions are needed. From my point of view, right or wrong, action and conversation go hand-in-hand, and how we figure that out together is up to all of us.

A conversation is about all of us and what we're going to do now is be responsive to the passion in the room, to the thoughtfulness in the room, to the ideas in the room, to the questions in the room, and switch the order of this time between now and 11:00. We are going to stop at 11:00 and move to our breakout sessions where you will have much more time to talk with each other and to share your views. We're going to start with questions, comments, and thoughts from all of you, rather than starting with our breakout session leaders. We are going to turn to them at the end and ask for their thoughts.

Our goal together, starting with all of you and then supported by the work group session chairs, is to get ready for going deeper, getting more specific, which we're going to do starting in the breakout sessions. We'll share that responsibility together.

We have two mics, one on either side of the aisles here. In flipping the order and starting with questions and comments from the room, my request for you, and the ground rule that I would like to get your agreement on, is that you will be respectful of one another with respect to time, that you speak passionately, but to the point to allow as many people as possible an equal chance to be heard. Is there anyone who is unwilling to honor that request to be brief in making their remarks? Then I am going to take your authority to enforce that ground rule.

I'll go back and forth on either side, so if one line is shorter than the other, go to the other line, because I am going to go back and forth. I will start here, because I saw you first. Please say your name and whatever you would like to say or ask.

**Dr. Lisa Nagy:**

My name is Dr. Lisa Nagy. I'm an emergency room physician who almost died from a toxicome and who has recovered.

As President of the Preventive and Environmental Health Alliance, I am working to integrate the theory and practice of environmental medicine into traditional medicine, medical school education, and the public domain.

In order to understand the effects of chemicals on public health, we must study and treat those made ill by exposure. Yet, society, the CDC, NIEHS, and the AMA seem to have been reluctant to acknowledge the plight of so many untreated individuals with these environmental illnesses, including chemical sensitivity, Gulf War Syndrome, fibromyalgia, chronic fatigue, autism, and the validity of environmental medicine itself.

We must come together with a plan for building an environmental hospital where research, treatment and public health strategies can be developed and perfected. A first step is to create a CDC department on environmental illness.

I respectfully suggest we need leadership at CDC levels and NIEHS levels, as to who should address the individuals who are exposed to mold and chemicals in homes and workplaces, and develop a new

economical and truly effective preventive medicine based on data from the work-up and treatments from patients like myself.

Environmental illness is the global warming of healthcare. It is high time that we tackle this problem and undertake the greening of American medicine.

For those who are interested, I will have a green flyer of this information and my nonprofit outside, but I really think that the patients cannot present today, and I really represent tens of millions of people who really can't be here.

**Gail Bingham:**

Thank you very much. Let me just note that we do have people taking notes during plenary. The idea is that are recording them. I noticed you had some remarks. If you would like to share them with me or Ben down here to go into all of the ideas that will go forward, we want to make sure we capture that.

Sir, please state your name.

**Jay Feldman:**

Thank you. My name is Jay Feldman, Executive Director of Beyond Pesticides based here in D.C. We work with community groups throughout the country and clearly, what you are doing in terms of science really can help inform local action and is critical.

Part of the problem we're having is, and I think you heard the frustration earlier, are the long delays in terms of getting science out to the community, informing local decisions, either by individuals in the marketplace or local decision-makers that are struggling with dump sites or chemical sprays or procurement in the management of their lands and buildings at the local level.

What is not emerging here in the discussion so far, we're talking about the all the good things we're doing. We're not talking about the transparency associated with the lack of knowledge, the synergy between chemicals, the lack of attention to mixtures, the lack of attention to disproportionate risks for people with preexisting conditions, or children that live in the inner cities with elevated asthma rates that are exposed to chemicals evaluated on the basis of average daily intake for the average male for average body weight, living in an average place in average America.

We saw a decision almost a month ago now on soil fumigants that asked farm workers to leave their houses, to evacuate their homes in so-called buffer zones. This was a decision that was referred to earlier as a safe pesticide use decision.

The point is, we may agree or disagree on what safe use is, but for the local individual who is being poisoned, and their communities contaminated on a daily basis, they need to know what you understand as scientists to be the limitations of our knowledge today, the limitations of risk assessment, the limitations of the interactions between pharmaceuticals and chemicals that are in our waterways that we're drinking on a daily basis. They need to understand this, so they can make better informed decisions in the marketplace so tenants associations can go to public housing authorities and say, wait a minute, we heard there's a safer way.

The only way your science can inform and help local people right now is to disclose these deficiencies, so people can shift immediately to safer practices. To the extent that you can help people make that shift, in the context of the president's initiatives on a safer economy, a greener economy, you guys can be the leading edge of helping to inform that transition. Thank you.

**Gail Bingham:**

Thank you very much. Sir?

**Dave Egilman:**

I'm Dave Egilman, an Occupational Environmental Physician at Brown.

I have a problem with the question that's being formulated for the conversation. Implicit in Dr. Frumkin's initial comments were that the problem was that if we had to do this to do again, we would do better science and find out more, and once we found out something, we might regulate it. There's another way to formulate it. That's the corporations who make these things and sell these things, prove they're safe.

Dr. Birnbaum mentioned that we wish - it would have been nice if those nano-tech people had just tested those cosmetics before they put them out there and, how did we miss that?

Well, we missed that because of power. That's another part of the conversation that's missing. This is a power question. It's a power between large corporations and people who get sick from their products. It's a foisting of capitalist externalities onto workers, the environment, and people who consume products.

Those two questions, how those questions are formed and get put into this discussion, they're not here. They need to be part of this at a fundamental level because otherwise, you are just going to be dicking around. All of the other problems, the delays, etc., come from a problem, a problem that's at a higher level, and it's a power problem. So on the panel, I would prefer to see seven community people and maybe one technical person as part of the conversation.

I know it took you a year and a half to put this together to manage to have an hour of lecture with not even questions, never mind conversation. Maybe you should think of getting a professional facilitator to bring it down, somebody who appears neutral, who can maybe teach you how to have a conversation, because I teach a lot. I don't have hour lectures in my class. Maybe that's why everybody takes it, and somehow, I figured that out without spending a year and a half without figuring out how to have a meeting.

**Gail Bingham:**

Thank you. I will be humble about being a professional facilitator. Sir?

**Jerry Ensminger:**

My name is Jerry Ensminger. I'm with the Camp Lejeune Community Assistance Panel for the contamination site at Camp Lejeune.

I listened to all you had to say this morning, but first and foremost, before we can have an actual conversation within this country about toxic exposures, we first have to have honesty within our federal agencies, and that's something we are severely lacking.

The Agency for Toxic Substances and Disease Registry went to Camp Lejeune in the early 1990s. They created a public health assessment for Camp Lejeune that took them six years. When it came out, it was wrought with errors. It was horrible. It's a well-known fact.

Not only that, they did a small for gestational age and adverse pregnancy outcome study. It was incorrect, because of incorrect water system data that was provided to them by the Department of the Navy and Marine Corps representatives.

Every initiative that ATSDR has taken at Camp Lejeune has been either stonewalled or wrought with errors because of the data that they received from the Department of Navy and Marine Corps. Yet, when ATSDR was called before a congressional hearing in June of 2007, their Deputy Director, Dr. Thomas Sinks, sat right there in front of that congressional committee and said nothing that the Department of Navy and the Marine Corps had done, had delayed or messed up their results at Camp Lejeune.

How can you say you're being honest when you're not? You go in front of Congress and you support the liars. Continuity at ATSDR in the department of health assessments and consultations, I beg any one of you to take a public health assessment from one place and compare it to another one and look at the very same chemicals that were involved at each site and you have different views on what levels are safe. Where's the continuity?

**Gail Bingham:**

Thank you. Do you have one more thing you want to say?  
Go ahead.

**Jerry Ensminger:**

We have a problem with our scientific bodies in this country right now, and that is their conflict of interest policies. They are too weak. They are allowing people from special interest groups to get involved in the scientific process, and their agents are being involved.

We need to take the example of IARC and go back and revise our conflict of interest policies when these committees are being formed, because our National Academy of Sciences right now, it's a joke. Thank you.

**Gail Bingham:**

Thank you. Yes, ma'am.

**Connie Thomas:**

Thank you so much for switching this up and allowing us to stand up here and say a few words, because we definitely need to have the citizen's voice heard. It needs to be early on when you are having a Webcast across the nation for people to know that the citizens are here and the citizens want to effect change.

My name is Connie Thomas. My former name is Biemiller and you can Google me and see what I have done. The fact of the matter is I represent a community in Georgia that was poisoned by a toxic substance known as ether prop that was developed in World War II chemical warfare agent, and we were exposed to that for a three-month period.

As many communities across America we had to stand up and fight for ourselves, figure out the government system, figure out what we could do for our safety and welfare. Then came along this thing called the health consult, or the health assessments, and all that did was further harm our community.

When we were trying to impact change with a corporation and trying to shut them down so they no longer poisoned us and began a class action suit, the health consult comes out and tells us that it was just a smell, we're not really sick, and that is happening across the nation. There is not one health consult, not one health assessment across this nation who is advocating for the citizens. Instead, it's handing more power into the hands of the corporations who are harming us.



I am asking that we leave here today with a mandate about the health consults and health assessments that are out there that they are faulty. We know that. There were hearings in March with the House of Representatives. We know it's faulty. We need to stop that now. We need to enact a precautionary principle about an assessment saying that it is bringing undue harm to people and until we figure out the best course of action to make sure that citizens are being truly advocated for, we need to stop it now, and we need to realize that is faulty. It is harming people. It harmed people for years. We need to go back and people can go back and say that did not work, and so what can we as a community do now as far as our legal apparatus, as far as our long-term health awareness?

Because we need to be followed for years to come, but these health assessments stop it in its tracks. Public health no longer follows my community to say, are we going to come down with cancer in five or ten years? We have people dying now from ALS because they were exposed to ether prop. We lost our animals and everything and Dr. Glickman was doing a bio-terrorism study on our community, and our community came up on the bio-terrorism study, because so many of our animals were going to PetSmart and dying, or coming up with bleeding and cancer. So, absolutely we know something happened in our community, but the ATSDR has gone against us.

That's why you are hearing all of this anger and frustration from people, because people are continually being harmed by the very agency that has been hired to protect us. I ask please do this today. Let's not leave here without some kind of mandate today. I'm all open to having a conversation, absolutely, as long as there is action as a part of that plan. I can hang with that, but let's do something today. Thank you.

**Gail Bingham:**

Thank you very much. Yes, ma'am.

**Michele Roberts:**

I want to make this quick. My name is Michele Roberts. I'm with Advocates for Environmental Human Rights, and I wanted to read just a piece that came from this *Agency for Toxic Substances and Disease Registry: Problems in the Past, Potential for the Future*, report by the Majority Staff of the Subcommittee on Investigations and Oversight of the Committee on Science and Technology, U.S. House of Representatives to Subcommittee Chairman Brad Miller, March 10th, 2009.

In the conclusion, it says the longer ATSDR continues to pursue its role to protecting public health as it has for the past three decades, issuing deeply flawed scientific reports, not responding to the concerns of local communities, and approaching potential environmental exposures with a mindset that endeavors to disprove any link between the public's ill health effects and potential exposures to environmental contaminants or toxins, the more people will suffer. This is what I'm talking about.

In Mossville, Louisiana, you came in 1998, because the community kept saying they had issues. They had issues with cancers and all other things. You said, yes, you do have issues here, 14 industrial facilities, four of which are the most egregious dioxin polluting facilities there are. And you found that the community had three times the amount of dioxin in their blood. What you failed to do was to come back to the community and say you have three times the amount of dioxin in your blood. What you failed to do is come back to the community and say, this is what I'm going to do to remedy the issue. In fact, what you failed to do is respond to the community when the community had to FOIA the information on their own bodies to find out about their health studies.

When they found out about all that was going on, that's how we put together the report along with Wilma Subra of the Subra Corporation, Advocates for Environmental Human Rights and the Mossville Environmental Action that spoke to dioxin using the government's own data.

We then sent you this booklet, along with a letter asking you to meet with us. You never did. Then, to add insult to injury, as my grandmother used to say, you put them in toxic cans called formaldehyde induced trailers. This type of thing has to stop. On top of that, communities in the San Francisco Bay area are being exposed to the naval shipyard and they're being told it's naturally occurring asbestos when we know that there are all other types of pollutants in that shipyard because it was a Superfund site. These types of things have to stop.

I'm all for, as my sister said over here, the conversation, but the conversation needs to begin with the impacted, and it needs to have action for the impacted, and I'm talking about action right now.

I thank you for this forum, but I think this kind of thing has to change. As President Obama said, we are in a new time. Change that we can believe in. Yes, we can. We're all each other's brothers and sisters' keepers. It's all about human rights. You are in a pivotal role to protect the human right of health for all communities, for all Americans. You play a viable role. If you can't do that, then I suggest you become part of the American fabric and find something else to do, because people are dying and it has to stop, no longer it's on your watch and you have been called on this. So what we're asking is when is the action going to begin?

Thank you very much.

**Gail Bingham:**

Thank you. Sir, go ahead.

**Arnold Wendroff:**

My name is Arnold Wendroff, I'm a medical sociologist and essentially the sole member of the Mercury Poisoning Project. I came here to badmouth ATSDR/CDC, but I would like to spread the blame around a bit. I would like to read an excerpt from a letter written to me by the surgeon general of the United States, October 16, 1990, after I had written a letter to her about the practice of people intentionally throwing unit weights of ten grams of elemental mercury on the floors of their homes in large numbers around the country. Antonia Novello wrote to me.

We received your letter, in which you express concern about the risk of domestic mercury exposure. The ritual of sprinkling mercury on the floor to ward off evil spirits as practiced by selected minority groups and get this, and may pose potential, may pose potential hazards to those who encounter the mercury, and then she wrote, and get this, I am confident that these two agencies, and that is CDC and ATSDR, I'm confident that these two agencies will remain vigilant in the pursuit of this potential health threat.

This is October 19, 1990. Now fast forward to '99 in the latest toxicological profile for mercury, which is still the current one. It says here, under exposures to children, page 480, there is an urgent need to obtain information on the levels of exposure from these ritualistic practices to determine if children or adults are at risk. Mercury vapor concentrations may be much higher after use during the winter months, etc. That's '99, an urgent need, and then fast forward to--

**Gail Bingham:**

One last point so others can talk.

### **Arnold Wendroff**

In sharing the blame here, I find myself in the interesting position to be between Peggy Shepard and Robert Bullard. These are both allegedly community environmental justice and health people, and I have repeatedly, over the years, and this is the problem, they don't want to know. In this case, it's not the shipyard, it's not GE, it's not Dow Corning, it's not the Air Force, Navy, or the Marines. The communities of color in this particular case have been poisoning themselves, their kids, and the successors to their homes, and people such as We Act and Dr. Bullard here don't want to know. They exercise zero advocacy. That's the story.

### **Gail Bingham:**

I would like to ask everybody to remember that we're all here because we're passionate to make things better. Blame, I would just like to ask whether that really helps us.

We have time for two more people, I'm sorry to say. Those of you who are still on-line, my apologies. Please take your thoughts into the breakout sessions. Don't leave, but we made a commitment to you to move out of here at 11:00. Ma'am, you were next and then sir, you will be the last person.

### **Charlotte Keys:**

I'm Charlotte Keys from Columbia, Mississippi, Founder and Director of the grass root community-based organization known as Jesus' People against Pollution.

I'm here because so often Mississippi tends to be overlooked and skipped, but I'm glad that I'm here today to engage in this conversation. I believe that it's going to take an act of God to help us all to be able to do the type of collaboration that's needed to correct a lot of these environmental, they said primary diseases that we're struggling with.

I believe that it takes honesty and it takes a heart of willingness to collaborate and not only just collaborate but to produce action. We are here not just for a conversation, but we're here to talk about ways and means of solving problems, I believe, and if we're going to do that, I think I heard it stated that Dr. Frumkin will be doing site visits. Not only does Dr. Frumkin need to do site visits, but a lot of the other agency folks need to participate in those site visits and need to be where a group of you come out into these grass roots communities, and not only just come out and hear what the community is reporting, but to produce an action plan to correct a lot of these problems.

The other thing I see is that corporations are so bent on being greedy for the love of money. I do believe that the community is not saying push industry away or push them out, that we have no jobs and we want green jobs and better jobs, better livelihoods. That there needs to be some type of health tax placed upon these companies if they're going to come in and pollute in this fashion and do the things that they do. I believe that we need to think about some type of health tax that goes into a fund that goes into the fund to help communities that are sick and dying, and on the ones, last but not least, the storm situation of the FEMA and formaldehyde trailers that I'm always talking about. You still have communities in these FEMA trailers and my understanding is that there was something released saying that the people could buy the trailers for a dollar, \$5 and some others. Evidently, our political leaders don't have the full understanding on behalf of what health damage that has already been done. I was hoping that we had other communities to come to this meeting talk and about a lot of the health crisis that has stemmed from being placed in the toxic matchbox. We have enough poisoning. It is time now for some corrective measures in dealing with these environmental diseases.

Columbia, Mississippi has been asking for 20 years for assistance and whatever the health professionals put in writing and on paper, be it from the agency or whatever, that have something to do with the housing

need and the community. I feel that we should not continue to do business as usual. We should make the effective changes through allowing the grass roots folks. Let the people speak for themselves. Let the agency folks hear for themselves. Let them work together with these grass root communities and dealing with problem solving. You are not going to be able to solve problems working in isolation and a few here and a few there. You only can solve problems when everybody that is causing the problem, that is in these different locations come together under one roof and begin to start a dialogue process in moving from paper to action. Not just continue to write up, but produce action with it. I thank you very much.

**Gail Bingham:**

Thank you very much. Sir, last word for now. There will be plenty of time for the future, but please.

**Robert Bullard:**

Good morning. My name is Robert Bullard, and I direct the Environmental Justice Resource Center at Clark Atlanta University in Atlanta, Georgia. For people who may not know me or what I do, for the last 30 years I have been working with communities that are on the fence line, that are on the front line, that basically have been poisoned by chemicals, whether it's from corporations, or, in some cases, our own county government and federal government with its federal facilities, or whether it's a landfill or it's owned by county, like in Dixon County, Tennessee where TCE was dumped there and contaminated this community and a family's farm. The Hope family that owned 150 acres of land. Their homestead is only 54 feet from this landfill, and all kinds of studies were done by the EPA showing that this family's wells were contaminated, the family's sick, but they had to sue to get the government to respond. It has been four years trying to get justice.

I think what you hear in this room, I'm a sociologist by training and I'm a trained observer and I know a little bit of something about communicating. What you hear is pent-up frustration of non-action, not just the last eight years, but for many communities and communities that are most impacted and lots of studies including some of the ones that I have written, that deal with the most impacted communities are not in this room. The people are not in this room, and they're on the fence line with these chemicals and they are dying while we're talking about spending 18 months talking and listening and communicating.

I'm not criticizing that process, but what I am saying is there is a sense of urgency in the air, and in November, that sense of urgency was translated into the idea called change. If we are to move a fast track and understand that having the data, having the facts, having the documentation, doing the reconnaissance and having all this information does not guarantee action.

We've had 50, 60 years of lead studies showing what childhood lead poisoning is doing to our children, but you have the residuals left over. Who do you think the kids are that will be lead poisoned? Urban, inner city, low income, children of color, so there is a residual that I think people are saying we have enough information already right now for action. We can take the 18 months to tweak and figure out how we're go move this action that needs to take place immediately, because this is an emergency and this is a disaster and it's a manmade disaster. Let me correct that. It's a human made disaster. It's not always men that are doing this.

I think it's important that we understand that people are waiting for action and they're waiting for the right action. Not having a response, whether it's Katrina response. There wasn't response in Katrina. It was just no response, and that's unacceptable.

I think when we talk about the science, there's a lot of science and the reason why a lot of communities of color, low income communities, working class communities are being poisoned and we know the

chemical toxological profiles of these chemicals and we know what the health effects are, it's not the science, or it is the science. It's the political science, and the political science is getting in the way of getting a lot of our communities that are on the fence line with Mossville or Dixon, Tennessee, or wherever. You know the communities and there's a lot of them and if you don't know the community, you just Google my name and some of the books I've written, enough to fill up a lot of case studies, fill up a lot of books. That's what people are saying and that needs to be respected, and the process.

Last point, this is déjà vu all over again. We did this 12 or 13 years ago with NEJAC, National Environmental Justice Advisory Council, not knee jerk, NEJAC, and we did the advisory committee and we did the listening session and people's expectations were up here. Nothing happened, except that people had to organize themselves, mobilize themselves and force the government to do their job. A lot of good people in government, forced to do their job, but a lot of communities don't have money for lawsuits, experts, scientists. I'm talking about communities that we work within the environmental justice movement. We're saying, since it's a new day, we want to see a new page written, and that's what people are saying and when people call me, I'm going to be on the side of the people.

**Gail Bingham:**

Thank you.

What we've decided is to let one more speaker speak. Please be brief and I'll say a little bit about logistics before we break, but they'll share their remarks in the breakout sessions. Go ahead, ma'am.

**Lin Kaatz Chary:**

Thank you, I appreciate the opportunity. My name is Lin Kaatz Chary. I'm from Gary, Indiana and Northwest Indiana, widely known as the sacrifice zone in the country for pollution, because of our position in the State of Indiana and the kind of industry that we have.

This panel is incomplete, and I won't be able to take it seriously until I see, sitting up there on that stage and listed in here, the labor unions and the representation of occupational health issues, because workers are on the front lines and they're the first ones who are exposed to these chemicals. As we all know, even though OSHA was on that long list that Howie put up on the screen, the levels for workers are different than the levels for people in the community, but where do they think these people go after they leave their jobs? They go home into the community. Until labor is represented in the interest of workers, this is not a full conversation. It's a partial conversation.

My other point is and I will make these quickly, is that we have to talk about the fact that there's a huge constituency of polluters who are not recognized by federal law and that's the federal government, that's the DOD, that's the military. We can have a conversation all we want, but until there is some assurance that the things that we're talking about are going to be respected by other parts of the federal government, we're talking in the wind and so that's really serious also.

I also want to say, following Dr. Bullard, that unless we give communities the capacity to participate, we can talk about participation all we want, but families who are struggling to keep body and soul together don't have time or money during the workday to come and listen to a Webcast, or come to Washington certainly. I thought Dr. Bullard was going to say a new day and a new dollar, because I think we have to understand that part of the stimulus for this country has to be including the community with real capacity to participate in the decisions that affect them.

Finally, I feel compelled to say this. I wanted to say that in Gary, I work on a committee, which is Community Action for Renewed Environment. That's a federal grant from EPA, and what we found is the

data gaps at the local level make it virtually impossible to understand what's truly going on. We get it, at best, at the county level. Our county is huge and includes middle class white people living on farms and rich neighborhoods, and then the rest of us up north living in the heart of the industrial communities surrounded by steel mills and refineries. That's really hugely important, and it can't mean health studies from ATSDR that is, as I've had with my own experience, boiler plate and then they punch in a few figures at the end to complete what the questions are without talking to anybody in the community.

Finally, I noticed here that I'm going to go the policies section and one of the questions is about risk assessment, and I'm here to say that risk assessment is a failed methodology that has not served any of the communities in this area. It has its place. I understand that. I'm not wiping it off the slate completely, but until we understand that we have to look at hazard and we have to understand that risk assessment cannot answer the questions. I'm an epidemiologist. It's a very blunt tool when it comes to environmental health issues. We all know that. That's what these communities are saying from the health studies.

We said that we've placed this in the public health paradigm. The public health paradigm is prevention. The public health, the primary care is prevention. That means the precautionary principle as the default. That means not waiting for a risk assessment, which relies on harm to figure out what the risk is, because you can't do a risk assessment unless you have evidence of harm. It means that the burden of proving harm can no longer be on the communities who are experiencing these things, which are exactly the model that we operate under right now, but it must shift the onus to prove to have no harm and to move towards precaution.

Thank you for the opportunity to speak.

**Gail Bingham:**

Thank you very much.

Out of respect for the people who sat down and apologies to you for not calling on you, we are now going to do the logistics for moving into the breakout sessions. What I'd like to do is introduce the people who will be chairing the breakout sessions and tell you where they will be meeting. It's not really the order I have here, but to my left is Dr. Kevin Teichman. He will be chairing the breakout session on scientific understanding. He is the Deputy Assistant Administrator for EPA's office of Research Development. The Scientific Understanding Group will be in hemisphere B. The two hemisphere rooms are out this back door, to your right and to your right again.

To his left is Dr. Tom Burke from Johns Hopkins, Bloomberg School of Public Health. He will be chairing the policies and practices breakout session, which will be in this room.

To his left is Dr. John Balbus who is a Professor at the George Washington University. He will be chairing the monitoring work group. This is the surveillance, collecting data conversation, so obviously, there's overlap. That particular one, I want to underscore where it's located. It is in the international gateway room, which is two floors up, so that we're on the C level. If you go out to the right and to the right again as if you are go hemispheres, there's an elevator. Go up to the mezzanine level, which is two floors up. That room is near the top of the stairway, which you can also take the stairway two floors up by going out the back door to the right and straight. So that's scientific understanding.

Next is Peggy Shepard who is the Executive Director of WE ACT for Environmental Justice. She will be chairing the serving communities breakout session, and obviously that's a critical conversation to be having. That's in oceanic B. The two oceanic breakout rooms are straight across where the coffee is, just on the other side of this reception area. To Peggy's left is Nsedu Witherspoon. She is sitting in for

Kathy Rest. Kathy will be the chair of the education and communication workgroup. Education and communication, clearly another theme, getting information to the public to their own decisions. Nsedu was introduced early and is the co-chair of the entire conversation. Kathy Rest is the Executive Director of the Union of Concerned Scientists.

To Nsedu's left is Andrea Kid-Taylor, who is a professor at Morgan State University. Dr. Taylor will be the chair of the chemical emergencies breakout session, and that is also in the ocean room straight across.

You have 10 or 15 minutes to get to your rooms and please continue the conversation.